

## Exercise 1: Drawing and Labeling a Process Diagram

### Instructions:

Draw a simple diagram that illustrates the process of **solar energy production** and label the following stages:

- Sunlight absorption by solar panels
- Conversion of sunlight into electricity
- Storage of electricity in batteries
- Distribution of electricity to homes

### Solution:

1. **Sunlight absorption by solar panels:** Solar panels on roofs absorb sunlight.
  2. **Conversion of sunlight into electricity:** The photovoltaic cells in the panels convert sunlight into direct current (DC) electricity.
  3. **Storage of electricity in batteries:** Excess electricity is stored in batteries for later use.
  4. **Distribution of electricity to homes:** Electricity is distributed to homes and devices as alternating current (AC).
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## Exercise 2: Describing the Process of Energy Production

### Instructions:

Describe the process of **hydroelectric power production** using **sequencers** (e.g., first, next, after that, finally).

**Solution:** "First, water from a river or dam flows through a turbine. Next, the moving water turns the turbine blades, which are connected to a generator. After that, the generator converts the mechanical energy into electrical energy. Finally, the electricity is transmitted through power lines to homes and businesses."

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## Exercise 3: Passive Voice in Describing a Process

**Instructions:**

Rewrite the following sentences about **wind energy production** in the **passive voice**.

1. The wind turns the turbine blades.
2. The blades generate mechanical energy.
3. The mechanical energy powers a generator.
4. The generator produces electricity.

**Solution:**

1. The turbine blades **are turned** by the wind.
  2. Mechanical energy **is generated** by the blades.
  3. A generator **is powered** by the mechanical energy.
  4. Electricity **is produced** by the generator.
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**Exercise 4: Listening and Sequencing Events****Instructions:**

Imagine a presentation about how **nuclear energy** is produced. Place the following steps in the correct order.

1. The reactor core heats water.
2. The steam drives a turbine.
3. Uranium atoms are split in a nuclear reactor.
4. The turbine generates electricity.

**Solution:**

1. Uranium atoms are split in a nuclear reactor.
  2. The reactor core heats water.
  3. The steam drives a turbine.
  4. The turbine generates electricity.
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## Exercise 5: Vocabulary and Definitions

### Instructions:

Match the energy-related terms to their correct definitions.

### Terms:

1. **Fossil fuel**
2. **Geothermal energy**
3. **Biomass**

**Definitions:** A. Energy derived from organic materials like plants and animal waste. B. Energy obtained from the heat inside the Earth. C. Natural resources like coal, oil, and natural gas that are burned to produce energy.

### Solution:

1. **Fossil fuel** → C. Natural resources like coal, oil, and natural gas that are burned to produce energy.
  2. **Geothermal energy** → B. Energy obtained from the heat inside the Earth.
  3. **Biomass** → A. Energy derived from organic materials like plants and animal waste.
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## Exercise 6: Describing a Process Using Relative Pronouns

### Instructions:

Complete the following sentences about how **solar energy** is produced, using appropriate **relative pronouns** (which, that, where).

1. A solar panel is a device \_\_\_\_\_ converts sunlight into electricity.
2. The power plant \_\_\_\_\_ produces electricity from solar energy is located in the desert.
3. The battery \_\_\_\_\_ stores excess energy is installed on the roof.

### Solution:

1. A solar panel is a device **that** converts sunlight into electricity.
  2. The power plant **which** produces electricity from solar energy is located in the desert.
  3. The battery **which** stores excess energy is installed on the roof.
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## Exercise 7: Reading Comprehension

### Instructions:

Read the following description of **coal energy production** and answer the questions.

**Text:** "Coal is burned in a furnace to produce heat. The heat converts water into steam, which drives a turbine. The turbine powers a generator that produces electricity. Coal energy is widely used, but it releases a significant amount of carbon dioxide into the atmosphere."

### Questions:

1. What is the purpose of burning coal?
2. How does the turbine get the energy to generate electricity?

### Solution:

1. The purpose of burning coal is to produce heat.
  2. The turbine gets energy from the steam produced when water is heated by burning coal.
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## Exercise 8: Writing Task - Describing a Process Using Sequencers

### Instructions:

Write a short paragraph describing how **natural gas** is used to produce electricity, using **sequencers** and the **passive voice**.

**Solution:** "First, natural gas **is extracted** from underground reserves. Next, it **is transported** to power plants through pipelines. After that, the gas **is burned** to heat water, which produces steam. Finally, the steam **is used** to turn a turbine, generating electricity."

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## Exercise 9: Guessing the Meaning of Words Through Context

### Instructions:

Read the following sentence and guess the meaning of the word "turbine" based on the context.

**Sentence:** "In a hydroelectric power plant, water flows through a turbine, causing it to spin and generate electricity."

**Question:** What is a turbine?

**Solution:** A turbine is a machine that spins when water (or another fluid) flows through it, generating electricity.

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## Exercise 10: Summarizing a Process

### Instructions:

Summarize the following steps in the process of **geothermal energy production**.

### Steps:

- Hot water and steam are pumped from deep underground.
- The steam drives a turbine.
- The turbine powers a generator.
- The generator produces electricity.

**Solution:** "Geothermal energy is produced by pumping hot water and steam from deep underground. The steam drives a turbine, which powers a generator that produces electricity."

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